

Reconsideration of the application is respectfully requested.

AMENDMENT

Please make the following amendments:

IN THE CLAIMS:

Please amend claims 1-2 and 7-11 to read as follows:

1. (Amended) A method comprising:
- forming a gate dielectric above a surface of the substrate;
- forming a doped-poly gate structure above the gate dielectric, the doped-poly gate structure having an edge region; and
- forming a first dopant-depleted region in the edge region of the doped-poly gate structure adjacent the gate dielectric and a second dopant-depleted region in the substrate under the edge region of the doped-poly gate structure.
2. (Amended) The method of claim 1, wherein forming the first_dopant-depleted region includes implanting a counter-dopant into the edge region of the doped-poly gate structure adjacent the gate dielectric, and forming the second dopant-depleted region includes implanting the counter-dopant into the substrate under the edge region of the doped-poly gate structure.
-
7. (Amended) The method of claim 1, wherein forming the first and second dopant-depleted regions includes depleting the edge region of the doped-poly gate structure adjacent the gate dielectric by forming depleting dielectric spacers adjacent the doped-poly gate

structure and depleting the substrate under the edge region of the doped-poly gate structure by forming the depleting dielectric spacers.

8. (Amended) The method of claim 2, wherein implanting the counter-dopant into the edge region of the doped-poly gate structure and the substrate under the edge region includes implanting one of phosphorus, arsenic, boron and boron fluoride into the edge region of the doped-poly gate structure and the substrate under the edge region, a dose of the one of phosphorus, arsenic, boron and boron fluoride ranging from about 1.0×10^{14} ions/cm² to about 1.0×10^{15} ions/cm² at an implant energy ranging from about 0.2-5 keV.

9. (Amended) The method of claim 3, wherein implanting the counter-dopant into the edge region of the doped-poly gate structure and the substrate under the edge region includes implanting one of phosphorus, arsenic, boron and boron fluoride into the edge region of the doped-poly gate structure and the substrate under the edge region, a dose of the one of phosphorus, arsenic, boron and boron fluoride ranging from about 1.0×10^{14} ions/cm² to about 1.0×10^{15} ions/cm² at an implant energy ranging from about 0.2-5 keV.

10. (Amended) The method of claim 1, wherein forming the first dopant-depleted region in the edge region of the doped-poly gate structure includes forming the first dopant-depleted region to have a depth from the edge of the doped-poly gate structure, the depth of the first dopant-depleted region ranging from about 50 Å-100 Å.

11. (Amended) A method comprising:

forming a gate dielectric above a surface of a substrate;

forming a doped-poly gate structure above the gate dielectric, the doped-poly gate structure having an edge region;

forming a source/drain extension (SDE) adjacent the doped-poly gate structure;
and

forming a dopant-depleted-poly region in the edge region of the doped-poly gate structure adjacent the gate dielectric and a dopant-depleted-SDE region in the substrate under the edge region of the doped-poly gate structure.

Please add new claim 47 as follows:

47. (New) A method, comprising:

forming a gate dielectric above a surface of a semiconductor substrate;

forming a doped-poly gate structure above the gate dielectric, the doped-poly gate structure having an edge region; and

forming a first dopant-depleted region in the edge region of the doped-poly gate structure adjacent the gate dielectric and a second dopant-depleted region in the substrate under the edge region of the doped-poly gate structure by:

implanting a counter-dopant into the edge region of the doped-poly gate structure adjacent the gate dielectric; and

forming depleting dielectric spacers adjacent the doped-poly gate structure.
